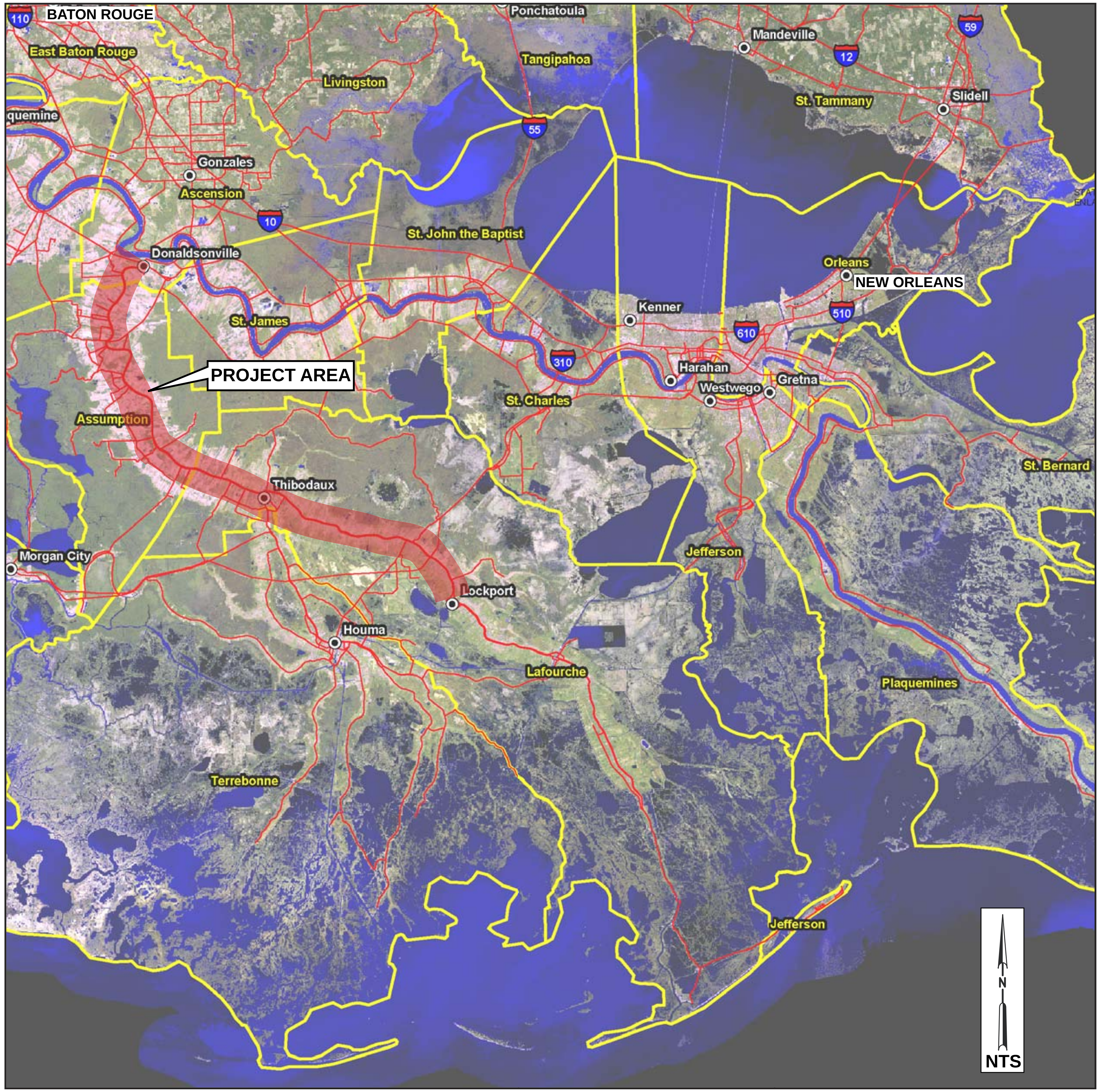
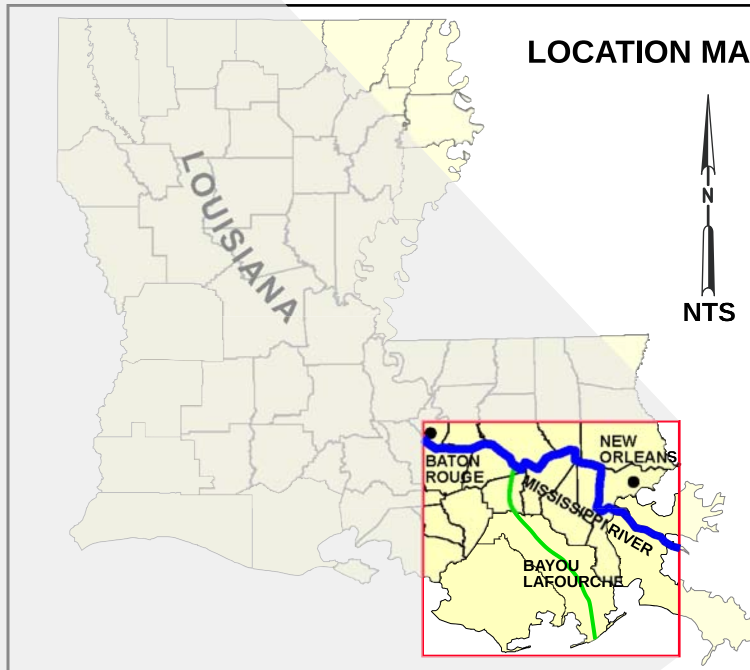
Appendix P
Design Drawings



VICINITY MAP



PRELIMINARY

NO	DATE	DESCRIPTION	APVR	APVD

NO.	DATE	REVISION	BY	APVD
DSGN		DR	CHK	APVD

MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

CH2MHILL

BAYOU LAFOURCHE
LOCATION AND VICINITY MAPS

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2005
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DWG	G-2
SHEET	SHEET NO. 2

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W082005001RDD_89 (11/30/05)

STRUCTURAL STEEL AND METAL FABRICATIONS

1. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING:

W - SHAPES	A992
MISCELLANEOUS SHAPES INCLUDING ANGLES, CHANNELS, PLATES, ETC.	A36
SQUARE OR RECTANGULAR STEEL TUBING	A500, GRADE B
STEEL PIPE	A501 OR A53, GRADE B

2. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN CONFORMANCE WITH THE AISC MANUAL OF STEEL CONSTRUCTION, CURRENT EDITION, AND CURRENT OSHA STANDARDS.

3. BOLTS SHALL BE HIGH STRENGTH BOLTS CONFORMING TO THE FOLLOWING EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE:

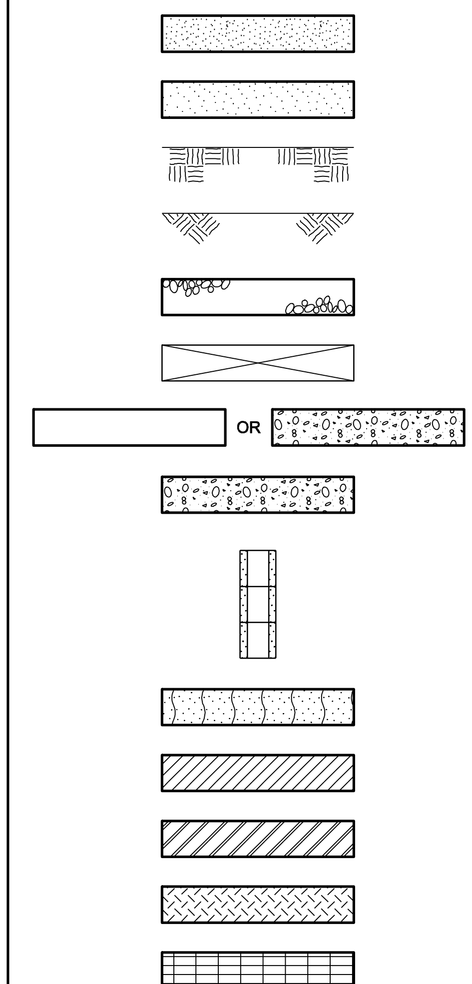
UNLESS SHOWN OTHERWISE	A325-N
SLIP CRITICAL	A325-SC
MACHINE BOLTS (MB) AND ANCHOR BOLTS (AB)	
STAINLESS STEEL	A193
GALVANIZED STEEL	A153

4. ITEMS TO BE EMBEDDED IN CONCRETE SHALL BE CLEAN AND FREE OF OIL, DIRT AND PAINT.

5. NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. NO CUTTING OR BURNING OF STRUCTURAL STEEL IS PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.

STRUCTURAL LEGEND

SYMBOL



DESCRIPTION

- GRANULAR FILL
- CLSM OR GROUT
- GRADE
- ROCK EXCAVATION
- AGG BASE & GRANULAR FILL
- STRUCTURAL OPENING
- CONCRETE
- CONCRETE FILL
- CMU (SECTION)
- CMU (PLAN)
- BRICK (THROUGH WALL OR VENEER)
- STRUCTURAL STEEL
- CHECKER PLATE
- GRATING

PRELIMINARY NOT FOR CONSTRUCTION

NO	DATE	DESCRIPTION	APVR

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DSGN K ICEMAN | DR M DUNN | CHK CHECKED-BY | APVD APPROVED-BY

MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE PHASE 2

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

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GENERAL
BAYOU LAFOURCHE
STRUCTURAL NOTES AND LEGEND

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

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MECHANICAL LEGEND AND NOTES

GENERAL PIPING NOTES

1. LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS. MINIMUM COVER SHALL BE 3'-6" UNLESS OTHERWISE SHOWN.
2. SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
3. LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN IS ONLY APPROXIMATE. FINAL SUPPORT REQUIREMENTS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION. MAXIMUM SPACING SHALL BE AS SPECIFIED.
4. APPROPRIATE STANDARD WALL PIPE DETAIL SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
5. ALL FLEXIBLE CONNECTORS OR FLANGED COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST TIES, BLOCKS, OR ANCHORS, UNLESS OTHERWISE NOTED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
6. SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. ALL OF THE VARIOUS APPLICATIONS ARE NOT NECESSARILY USED IN THE PROJECT.
7. ALL PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, GROOVED END OR SCREWED PIPING, SHALL BE PROVIDED WITH THRUST PROTECTION AT ALL DIRECTION CHANGES, UNLESS OTHERWISE NOTED. SEE THRUST DETAILS AND NOTES ON DRAWINGS.
8. NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS ARE ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
9. THE CONTRACTOR FOR THIS CONTRACT IS RESPONSIBLE FOR COORDINATING AND PERFORMING THE CONNECTION OF THE PIPING AND ASSOCIATED APPURTENANCES INSTALLED UNDER THIS CONTRACT TO BOTH THE EXISTING PIPING AND FACILITIES.
10. PRIOR TO SUBMITTING PIPING DRAWINGS FOR ANY NEW PIPE THAT IS TO CONNECT TO OR CROSS AN EXISTING PIPE OR STRUCTURE, THE CONTRACTOR SHALL EXPOSE THE EXISTING PIPE OR STRUCTURE TO VERIFY ITS EXACT LOCATION, SIZE, MATERIALS, AND INVERT ELEVATIONS.
11. COMPONENTS SHOWN WITH A DOUBLE ASTERISK (**) ARE PART OF A PACKAGE SYSTEM. SEE EQUIPMENT SPECIFICATIONS.

PIPING DESIGNATION

EXAMPLE:

XXX.X — XXX.X — INVERT ELEVATION

16" — RW

16" RW

PIPE USE IDENTIFICATION LEGEND

NOMINAL PIPE DIAMETER

VALVE DESIGNATIONS

VXXX — VALVE TYPE DESIGNATION ALL VALVES, SEE SECTION 15202

VALVE EQUIPMENT NUMBER, ELECTRIC VALVES ONLY, SEE I&C LEGEND.

ACTUATOR SYMBOL — E

FLOW DIRECTION

VALVE SYMBOL

NOTE:
ELECTRIC VALVE SHOWN, MANUAL VALVE SIMILAR.

NOTES:

1. ONLY FLANGED END CONNECTIONS ARE SHOWN HERE FOR DOUBLE LINE FITTINGS. FITTINGS WITH OTHER END PATTERNS ARE SHOWN SIMILARLY ON THE CONSTRUCTION DRAWINGS. ALSO SEE PIPING SPECIFICATIONS AND THE PIPING SCHEDULE.
2. SYMBOLS SHOWN HERE FOR SINGLE LINE FITTINGS ARE GENERIC ONLY. REFER TO PIPING SPECIFICATIONS FOR SPECIFIC END CONNECTIONS FOR SINGLE LINE PIPE AND FITTINGS.

PIPE AND FITTING SYMBOLS

DOUBLE LINE — SINGLE LINE

- EXISTING PIPE (SCREENED)
- NEW PIPE
- EXISTING PIPE TO BE ABANDONED
- EXISTING PIPE TO BE REMOVED
- WELDED JOINT
- GROOVED END JOINT - FLEXIBLE
- GROOVED END JOINT - RIGID
- GROOVED END FLANGED ADAPTER
- FLANGED JOINT
- PROPRIETARY RESTRAINED JOINT
- HUB & SPIGOT JOINT (RUBBER GASKET PUSH-ON)
- BALL JOINT
- FLANGE COUPLING ADAPTER
- FLEXIBLE COUPLING
- FLEXIBLE COUPLING WITH THRUST TIES
- STEEL BELLOWS EXPANSION JOINT
- ELASTOMER BELLOWS EXPANSION JOINT
- ELBOW UP
- ELBOW DOWN
- TEE UP
- TEE DOWN
- LATERAL UP
- LATERAL DOWN
- CONCENTRIC REDUCER
- ECCENTRIC REDUCER
- UNION
- BLIND FLANGE
- PLUG
- CAP
- ANCHOR
- ELBOW, 90 DEGREE
- CROSS
- TEE
- ELBOW, 45 DEGREE
- LATERAL

VALVE SYMBOLS

- GATE
- K — KNIFE GATE
- BUTTERFLY
- GLOBE
- BALL
- V — VEE-BALL
- SEAT PORT
- ECCENTRIC PLUG W/ REQUIRED SEAT LOCATION
- PLUG OR COCK
- FP — FULL PORT PLUG
- NEEDLE
- DIAPHRAGM
- PINCH
- SWING CHECK
- DOUBLE DISK CHECK
- BALL CHECK
- HOSE VALVE
- X — NON FREEZE HOSE VALVE X = NO. IN SPECS
- X — NON FREEZE HOSE VALVE WITH HOSE RACK X = NO. IN SPECS
- S — SAMPLE
- MUD
- PRESSURE RELIEF
- AIR AND/OR VACUUM RELEASE
- REGULATED SIDE
- PRESSURE CONTROL
- MULTI-PORT VALVE (BALL VALVE SHOWN. FOR OTHER VALVE TYPES, APPROPRIATE VALVE SYMBOL SHOWN.) ARROWS INDICATE FLOW PATTERN. SEAT PORTS ARE IMPLIED BY INDICATED FLOW PATTERN.
- FIRE HYDRANT
- CATHODIC PROTECTION TEST STATION
- CATHODIC PROTECTION ANODE

MISCELLANEOUS PIPING SYMBOLS

- STRAINER
- SIGHT GLASS
- FLEXIBLE (ELASTOMER) PIPE CONNECTION
- GAUGE WITH COCK
- THERMOMETER
- ROTAMETER
- A — GALVANIC ANODE
- XX — AIR SET XX = SUPPLY PRESSURE - PSIG
- PS 26-1-2 — TYPICAL INSTRUMENT SYMBOL (SEE I&C LEGEND)

PLUMBING FIXTURE IDENTIFICATION

ANT	ACID NEUTRALIZATION TANK		
DF	DRINKING FOUNTAIN	SSK	SERVICE SINK
EE	EMERGENCY EYE WASH	TP	TRAP PRIMER
HC	HOSE CONNECTION (FIRE DEPARTMENT CONNECTION)	TV	TEMPERING VALVE
		WC	WATER CLOSET
HV	HOSE VALVE	WH	WATER HEATER
LAV	LAVATORY	UR	URINAL
SH	SHOWER		
SK	SINK		
SSH	SAFETY SHOWER		

NOTE: FOR PLUMBING FLOWSTREAMS SEE SPEC SECTION 15200 PROCESS PIPING-GENERAL

EXAMPLE: LAV 2

FIXTURE LEGEND

NO. IN SPECIFICATIONS

BUILDING SERVICES SYMBOLS

- PS — PRESSURE SWITCH
- HOSE RACK (TYPE AS INDICATED)
- SHOCK ARRESTOR
- S — EYEWASH WITH SAFETY SHOWER
- HD-XY — HUB DRAIN X - NO. IN SPECS Y-P WITH PRIMED TRAP
- FD-XY — FLOOR DRAIN X - NO. IN SPECS Y - P WITH PRIMED TRAP; T WITH TRAP ONLY
- OD-X — OVERFLOW DRAIN X = NO. IN SPECS
- RD-X — ROOF DRAIN X = NO. IN SPECS
- AD-XY — AREA DRAIN X = NO. IN SPECS Y = P WITH PRIMED TRAP
- XCO — X = F - FLOOR CLEANOUT, D - DECK CLEANOUT, W - WALL CLEANOUT, P - PIPE CLEANOUT

PRELIMINARY NOT FOR CONSTRUCTION

NO	DATE	DESCRIPTION	BY	APVR	N

REVISION

NO.	DATE	REVISION	CHK	APVD

DSGN K ICEMAN — DR M DUNN — CHECKED-BY — APPROVED-BY

MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE PHASE 2

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

CH2MHILL

GENERAL
BAYOU LAFOURCHE
MECHANICAL LEGEND

VERIFY SCALE
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ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	NEW EQUIPMENT, WIRING AND TEXT
	EXISTING EQUIPMENT, WIRING AND TEXT IS SHOWN WITH SCREENED LINES
	FUTURE EQUIPMENT NOT IN CONTRACT
	EXISTING EQUIPMENT, CONDUIT AND WIRING TO BE REMOVED
	CONNECTION POINT - FURNISH AND INSTALL UNDER OTHER SECTIONS, RACEWAYS, CONDUCTORS AND CONDUCTOR END TERMINATORS FURNISHED AND INSTALLED UNDER THIS SECTION AS SHOWN. CONDUCTOR FINAL CONNECTIONS PROVIDED UNDER OTHER SECTIONS.
	CONNECTION POINT(S) TO EQUIPMENT SPECIFIED. INCLUDING RACEWAY, CONDUCTORS, AND CONNECTIONS.
MCC-A	MAJOR ELECTRICAL COMPONENT OR DEVICE - NAME OR IDENTIFYING SYMBOL AS SHOWN.
	BRANCH CIRCUIT PANELBOARD
UH1	UNIT HEATER NO.1 SEE SCHEDULE
	TERMINAL JUNCTION BOX
10	WOUND-ROTOR MOTOR, HORSEPOWER INDICATED
5	MOTOR, SQUIRREL CAGE INDUCTION - HORSEPOWER INDICATED
GEN	GENERATOR
	LUMINAIRE
N	LUMINAIRE-FLUORESCENT N= UNSWITCHED NIGHTLIGHT
	LUMINAIRE AND POLE
	WALL MOUNTED LUMINAIRE
	FLOOD LIGHTS
	EXIT LIGHTS
	LUMINAIRE W/EMERGENCY BATTERY PACK
QS	HID W/ QUARTZ STBY LAMP
	EMERGENCY DC LIGHT UNIT
LA-2	HOME RUN - DESTINATION SHOWN
or G	EXPOSED CONDUIT AND CONDUCTORS*
or G	CONCEALED CONDUIT AND CONDUCTORS*
NOTE:	RUNS WITH CROSSHATCHES INDICATE NUMBER OF NO.12 CONDUCTORS MINIMUM. CROSSHATCH WITH SUBSCRIPT "G" INDICATES GREEN GROUND WIRE. EACH CONDUIT RUN SHALL BE PROVIDED W/ A GREEN GROUND CONDUCTOR, EXCEPT FOR SIGNAL CONDUIT RUNS. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE. MINIMUM SIZE CONDUIT SHALL BE 3/4".
	CROSSHATCHES WITH BAR INDICATE #10 CONDUCTOR. SIZE CONDUIT ACCORDING TO SPECIFICATIONS AND APPLICABLE CODE. MINIMUM SIZE CONDUIT SHALL BE 3/4".
CE	CONCRETE ENCASED DUCT BANK
	CONDUIT DOWN
	CONDUIT UP
T	TELEPHONE DUCT
G	BURIED 2/0 GROUND CONDUCTOR
S_a a	LOWER CASE LETTER SUBSCRIPT AT SWITCH AND LUMINAIRE INDICATES SWITCHING.
S_a	WALL SWITCH: 2- DOUBLE POLE, 3- THREE WAY, 4- FOUR WAY, WP-WEATHERPROOF, M- MOTOR RATED, P- PILOT LIGHT, K- KEY OPERATED, D- DIMMER, T- TIMER, CRE-CORROSION RESISTANT
S_{MS}	MANUAL MOTOR STARTER SWITCH

SYMBOL	DESCRIPTION
	CONVENIENCE RECEPTACLE - DUPLEX UNLESS SPECIFIED OTHERWISE C- CLOCK HANGER TL- TWIST LOCK CRE-CORROSION RESISTANT WP-WEATHERPROOF AND GROUND FAULT INTERRUPTING
PNL 4-1-1 (2)	CONVENIENCE RECEPTACLE - WITH PANEL NUMBER AND CIRCUIT NUMBER IN PARENTHESIS.
	CONVENIENCE RECEPTACLE, PEDESTAL, DUPLEX SINGLE FACE UNLESS INDICATED OTHERWISE
30	RECEPTACLE - 240V., 1Ø, AMPERAGE INDICATED
30	RECEPTACLE, SPECIAL PURPOSE - AMPERAGE AS INDICATED
	DUPLEX CONVENIENCE RECEPTACLE - FLUSH IN FLOOR
	MULTI OUTLET ASSEMBLY
	RECEPTACLE - 4-PLEX
	TELEPHONE RECEPTACLE - FLUSH IN FLOOR
	TELEPHONE RECEPTACLE
J	GENERAL CONTROL OR WIRING DEVICE. NEMA 12 ENCLOSURE UNLESS INDICATED OTHERWISE. (WP = NEMA4X) ENCLOSURE, XP = NEMA 7 EXPLOSION PROOF ENCLOSURE.
CS	CONTROL STATION, NEMA 12 ENCLOSURE UNLESS INDICATED OTHERWISE. (WP = NEMA 4 ENCLOSURE) SEE CONTROL DIAGRAMS FOR TYPE OF CONTROLS REQUIRED.
30	NONFUSED DISCONNECT SWITCH, SIZE INDICATED, 3 POLE UNLESS INDICATED OTHERWISE, NEMA 12 ENCLOSURE, WP = WEATHERPROOF (NEMA 4X)
60/40	FUSED DISCONNECT SWITCH, SIZE INDICATED (60/40, 60 = SWITCH RATING: 40 = FUSE RATING) 3 POLE UNLESS INDICATED OTHERWISE, NEMA 12 ENCLOSURE, WP = WEATHERPROOF (NEMA 4X)
2	CONTACTOR, MAGNETIC, NEMA SIZE INDICATED, NEMA 12 ENCLOSURE, UNLESS INDICATED OTHERWISE.
30 L	LIGHTING CONTACTOR, CURRENT RATING INDICATED, NEMA 12 ENCLOSURE UNLESS INDICATED OTHERWISE. SEE CONTROL DIAGRAM FOR NUMBER OF POLES.
2	STARTER MAGNETIC NEMA SIZE INDICATED, NEMA 12 ENCLOSURE UNLESS INDICATED OTHERWISE. SEE CONTROL DIAGRAM.
	COMBINATION DISCONNECT/MAGNETIC STARTER, NEMA SIZE 1, NEMA 4X ENCLOSURE UNLESS INDICATED OTHERWISE.
D	DATA/VOICE OUTLET
N	NETWORK OUTLET
	METERING FACILITIES
	MULTI-PARTY DESK TOP COMMUNICATIONS SYSTEM STATION WITH REMOTE AMPLIFIER
W	MULTI-PARTY WALL MOUNTED COMMUNICATIONS SYSTEM STATION WITH INTEGRAL AMPLIFIER
	CONE TYPE PAGING SPEAKER, CEILING MOUNTED
	INTERIOR PROCESS ALARM HORN, SURFACE MOUNTED.
	OUTDOOR PROCESS ALARM HORN, SURFACE MOUNTED.
F	FIRE ALARM STROBE
F	FIRE ALARM STATION, MANUAL
FA	FIRE ALARM STATION, AUTOMATIC, HEAT DETECTOR
F	FIRE ALARM BELL
F	FIRE ALARM HORN
FI	FIRE ALARM IONIZATION DECTOR
I	AIR DUCT IONIZATION DETECTOR
	GROUND ROD BOX AND COVER AS SHOWN ON THE DRAWINGS
	TERMINAL OR CLAMP GROUND CABLE CONNECTION
	EXOTHERMIC WELD GROUND CABLE CONNECTION
P	PHOTOELECTRIC AND MOTION DETECTOR SWITCH
	SECURITY CAMERA

SYMBOL	DESCRIPTION
1	CONTACT - NORMALLY OPEN WITH NEMA SIZE INDICATED AS APPLICABLE
1	CONTACT - NORMALLY CLOSED WITH NEMA SIZE INDICATED AS APPLICABLE
TDR TC or TDR TO	TIME DELAY RELAY CONTACT (TIME ACTION INDICATED)
	REMOTE DEVICE
XX	RELAY COIL: CR= CONTROL RELAY, TDR=TIME DELAY RELAY
	OVERLOAD RELAY HEATER
1	MAGNETIC STARTER WITH NEMA SIZE INDICATED
100/M	CIRCUIT BREAKER, MAGNETIC TRIP ONLY, FRAME SIZE SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	CIRCUIT BREAKER, THERMAL MAGNETIC TRIP SHOWN, 3 POLE UNLESS INDICATED OTHERWISE.
	CIRCUIT BREAKER, INSULATED CASE, LOW VOLTAGE
300 175	FUSED SWITCH, SWITCH AND FUSE CURRENT RATING INDICATED, 3 POLE UNLESS INDICATED OTHERWISE.
100	SWITCH - CURRENT RATING INDICATED, 3 POLE UNLESS INDICATED OTHERWISE.
LC UC	LATCHING RELAY
	LIGHTNING ARRESTER
	FUSE
10	CAPACITOR - KVAR INDICATED
SW V 0-600V100	METER WITH SWITCH - SCALE RANGE SHOWN
	GROUND
OR 120V 120/240V 15 KVA, 1 PH	TRANSFORMER, SECONDARY VOLTAGES, PHASE AND RATING INDICATED AS APPLICABLE
GFR 25A 0.1	PICK-UP SETTING, TIME CURRENT CHARACTERISTIC — GROUND FAULT RELAY WITH C.T.
	PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY OPEN
	PUSH-BUTTON SWITCH, MOMENTARY CONTACT, NORMALLY CLOSED
	PUSH BUTTON SWITCH, MAINTAINED CONTACTS WITH MECHANICAL INTERLOCK
	3 POSITION SELECTOR SWITCH MAINTAINED CONTACT
	2 POSITION SELECTOR SWITCH MAINTAINED CONTACT
HAND OFF AUTO XOO OOX	SELECTOR SWITCH - MAINTAINED CONTACT X INDICATES CLOSED POSITION
(3)	CURRENT TRANSFORMER, NUMBER INDICATED
A	INDICATING LIGHT, PUSH-TO-TEST, LETTER INDICATES COLOR
A	INDICATING LIGHT - LETTER INDICATES COLOR: A - AMBER, B - BLUE, C - CLEAR, G - GREEN, R - RED, W - WHITE

ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION
A	AMMETER, AMPERE
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AFD	ADJUSTABLE FREQUENCY DRIVE
AFF	ABOVE FINISHED FLOOR
AS	AMPERE SENSOR
ASU	AIR SUPPLY UNIT
ATCS	AUTOMATIC TRANSFER CONTROL SYSTEM
ATS	AUTOMATIC TRANSFER SW
AT	AMP TRIP
BO	BOILER
BCU	BARE COPPER
BRKR	BREAKER
C	CONDUIT, CONTACTOR
CB	CIRCUIT BREAKER
CC	CONTROL CABLE
CKT	CIRCUIT
COMM	COMMUNICATIONS
COND	CONDUCTOR
CONT	CONTINUED
CPT	CONTROL POWER XFMR
CR	CONTROL RELAY
CRE	CORROSION RESISTANT
CRS	COATED RIGID STEEL CONDUIT
CS	CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DCU	DISTRIBUTED CONTROL UNIT
DIV	DIVISION
E	EMPTY
ECP	ENVIROMENT CONTROL PNL
EF	EXHAUST FAN
EMER	EMERGENCY
EOL	END OF LINE REGISTER
ETM	ELAPSED TIME METER
EXST	EXISTING
FACP	FIRE CONTROL PANEL
FDR	FEEDER
F, FU	FUSE
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FIBER OPTIC
G	GREEN GROUND, GROUND
GALV	GALVANIZED
GF	GROUND FAULT
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GND	GROUND
GRH	GAS RADIANT HEATER
H	HIGH SPEED
HD	HEAT DETECTOR
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING & AIR CONDITIONING
IC	INTERRUPTING CAPACITY
I & C	INSTRUMENTATION AND CONTROL
INCAND	INCANDESCENT
INST	INSTANTANEOUS
INSTR	INSTRUMENTATION
ISOL	ISOLATION
J, J-BOX	JUNCTION BOX
K	KEY INTERLOCK
L	LIGHTING CONTACTOR, LOW SPEED
LA	LIGHTNING ARRESTER
LC	LOAD CENTER
LOC	LOCATION
LR	LATCHING RELAY
LS	LIMIT SWITCH
LT	LONG TIME
LT FLEX	LIQUID TIGHT FLEX CONDUIT
LTG	LIGHTING
LV	LOW VOLTAGE
M	MAGNETIC CONTACTOR COIL
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MERC	MERCURY VAPOR
MFR	MANUFACTURER
MH	MANHOLE
MMP	MECHANICAL MOUNTING PANEL
MO	MOTOR OPERATER
MS	MOTOR STARTER
MSC	MFR SUPPLIED CABLE
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
N	NEUTRAL
NA	NON-AUTOMATIC
NC	NORMALLY CLOSED
NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
NO	NORMALLY OPEN
NP	NAMEPLATE
OH	OVERHEAD ELECTRIC
OL	OVERLOAD RELAY
PB	PULL BOX
PC	POWER CENTER
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE CONDUIT
R	RED
RECEPT	RECEPTACLE
REQD	REQUIRED
RM	REMOTE MULTIPLEXER
RS	RIGID STEEL CONDUIT
RT	REMOTE TELEMETRY
S	SWITCH
SC	SPEED CONTROL
SECT	SECTION
SH	SPACE HEATER
S/N	SOLID NEUTRAL
SPD	SPEED
SPEC	SPECIFICATIONS
SST	STAINLESS STEEL
ST	SHORT TIME
SV	SOLENOID VALVE
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYM	SYMMETRICAL
T	THERMOSTAT
TB	TERMINAL BOARD
TD	TEMPERATURE DETECTOR
TCU	TERMINAL CONTROL UNIT
TDR	TIME DELAY RELAY
TJB	TERMINAL JUNCTION BOX
TS	TEMPERATURE SWITCH
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
UG	UNDERGROUND ELECTRIC
UH	UNIT HEATER
UVR	UNDER VOLTAGE RELAY
V	VOLTMETER, VOLT
VFD	VARIABLE FREQUENCY DRIVE
W	WATT
WC	WATER COIL
WHD	WATTHOUR DEMAND METER
WP	WEATHERPROOF (NEMA 4X)
XFMR	TRANSFORMER
XP	EXPLOSION PROOF CLASS 1 DIV 1
(hexagon)	FOR INSTRUMENT ABBREVIATIONS SEE I & C LEGENDS

* DENOTES DEVICE REMOTE FROM STARTER OR PANEL

NOTE:
THIS IS A STANDARD LEGEND SHEET. THEREFORE SOME SYMBOLS OR ABBREVIATIONS MAY APPEAR ON THIS SHEET AND NOT ON THE PLANS.

PRELIMINARY NOT FOR CONSTRUCTION

NO	DATE	REVISION	BY	APVD

DSGN K ICEMAN
DR M DUNN
CHK
APVD

CH2MHILL

MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE PHASE 2
LOUISIANA DEPARTMENT OF NATURAL RESOURCES

GENERAL
BAYOU LAFOURCHE
ELECTRICAL LEGEND

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2005
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INSTRUMENT IDENTIFICATION

EXAMPLE SYMBOLS

- FIRST LETTER(S)
- SUCCEEDING LETTER(S)
- CLARIFYING ABBREVIATIONS
- FIT BB PPLU
- UNIT NUMBER
- LOOP NUMBER
- PROCESS NUMBER

INSTRUMENT IDENTIFICATION LETTERS TABLE

LETTER	FIRST-LETTER: PROCESS OR INITIATING VARIABLE	FIRST-LETTER: MODIFIER	SUCCEEDING-LETTERS: READOUT OR PASSIVE FUNCTION	SUCCEEDING-LETTERS: OUTPUT FUNCTION	SUCCEEDING-LETTERS: MODIFIER
A	ANALYSIS (+)		ALARM		
B	BURNER, COMBUSTION		USER'S CHOICE (*)	USER'S CHOICE (*)	USER'S CHOICE (*)
C	USER'S CHOICE (*)			CONTROL	
D	DENSITY (S.G)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT, SENSOR		
F	FLOW RATE	RATIO (FRACTION)			
G	USER'S CHOICE (*)		GLASS, GAUGE VIEWING DEVICE	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME, TIME SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION	MOMENTARY			MIDDLE, INTERMEDIATE
N	TORQUE		USER'S CHOICE (*)	USER'S CHOICE (*)	USER'S CHOICE (*)
O	USER'S CHOICE (*)		ORIFICE, RESTRICTION		
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD OR PRINT		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL		
X	UNCLASSIFIED (+)	X AXIS	UNCLASSIFIED (+)	UNCLASSIFIED (+)	UNCLASSIFIED (+)
Y	EVENT, STATE OR PRESENCE	Y AXIS		RELAY, COMPUTE, CONVERT	
Z	POSITION	Z AXIS		DRIVE, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

TABLE BASED ON THE INSTRUMENTATION, SYSTEMS, AND AUTOMATION SOCIETY (ISA) STANDARD.

(+) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS AND LETTER SYMBOLS.

(*) WHEN USED, DEFINE THE MEANING HERE FOR THE PROJECT

GENERAL INSTRUMENT OR FUNCTIONAL SYMBOLS

- FIELD MOUNTED
- REAR-OF-PANEL MOUNTED (OPERATOR INACCESSIBLE)
- PANEL MOUNTED (OPERATOR ACCESSIBLE)
- MCC MOUNTED
- COMPUTER FUNCTION
- PLC FUNCTION
- SHARED DISPLAY, SHARED CONTROL

SPECIAL CASES

- YL OO — ON AND OFF EVENT LIGHTS
- HS OO — ON-OFF HAND SWITCH. MAINTAINED CONTACT SWITCH (CONTROLLED DEVICE WILL RESTART ON RETURN OF POWER AFTER POWER FAILURE).
- HS SS — STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

TRANSDUCERS

A	ANALOG	I	CURRENT
D	DIGITAL	P	PNEUMATIC
E	VOLTAGE	PF	PULSE FREQUENCY
F	FREQUENCY	PD	PULSE DURATION
H	HYDRAULIC	R	RESISTANCE

EXAMPLE:

FY I/P — CURRENT TO PNEUMATIC TRANSDUCER (BACK OF PANEL, IN A FLOW LOOP)

LINE LEGEND

- PROCESS (CLOSED CONDUIT, DASHED LINE INDICATES ALTERNATE FLOW STREAM)
- PROCESS (OPEN CHANNEL)
- ANALOG SIGNAL (4 TO 20 mAdc, ETC.)
- DISCRETE SIGNAL (ON/OFF, ETC.)
- PNEUMATIC SIGNAL
- FILLED SYSTEM SIGNAL
- HYDRAULIC SYSTEM SIGNAL
- DATA LINK
- BUILDING OR FACILITY BOUNDARY
- PACKAGE SYSTEM EQUIPMENT

PARALLELING LINES

(2) 3(2)

(A) (B)

(A) TOTAL OF 2 SIGNALS

(B) 3 TYPICAL SETS OF 2 SIGNALS EACH. TOTAL OF 6 SIGNALS.

- CONNECTING LINES
- NON-CONNECTING LINES

INTERFACE SYMBOLS

S A — A D

- = PROCESS INTERFACE
- = SIGNAL INTERFACE
- A = INTERFACE LETTER
- D = DESTINATION DRAWING NO.
- S = SOURCE DRAWING NO.

(N) PROCESS OR SIGNAL LINE CONTINUATION N=1,2,3,ETC

INTERFACE TO OR FROM PROCESS EXTERNAL TO PROJECT

SELF CONTAINED VALVE & EQUIPMENT TAG NUMBERS

D-XXXX

D:
- ARV = AIR RELEASE VALVE
- AVRV = AIR AND VACUUM RELEASE VALVE
- E = EJECTOR
- G = GATE
- M = MECHANICAL EQUIPMENT
- P = PUMP
- T = TANK

XXXX = EQUIPMENT NUMBER

ABBREVIATIONS & LETTER SYMBOLS

AC	ALTERNATING CURRENT
AM	AUTO-MANUAL
AFD	ADJUSTABLE FREQUENCY DRIVE
CCS	CENTRAL CONTROL SYSTEM
CL_2 etc.	CHLORINE (TYPICAL: USE STANDARD CHEMICAL ELEMENT ABBREVIATION)
CM	COMPUTER-MANUAL
COD	CHEMICAL OXYGEN DEMAND
CP-X	CONTROL PANEL NO. X
DC	DIRECT CURRENT
DCS	DISTRIBUTED CONTROL SYSTEM
DCU	DISTRIBUTED CONTROL UNIT
DO	DISSOLVED OXYGEN
FCL_2	FREE CHLORINE RESIDUAL
FOS	FAST-OFF-SLOW
FOSA	FAST-OFF-SLOW-AUTO
FOSR	FAST-OFF-SLOW-REMOTE
FP-W-X	FIELD PANEL NO. WX (W = UNIT PROCESS NUMBER X = PANEL NUMBER)
FR	FORWARD-REVERSE
HMI	HUMAN-MACHINE INTERFACE
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
ISB	INTRINSICALLY-SAFE BARRIER
ISR	INTRINSICALLY SAFE RELAY
LCP	LOCAL CONTROL PANEL
LEL	LOWER EXPLOSIVE LIMIT
LOS	LOCKOUT STOP
LR	LOCAL-REMOTE
MA	MANUAL-AUTO
MC	MODULATE-CLOSE
MCC-X	MOTOR CONTROL CENTER NO. X
MF	MICROFILTER
MS	MOTOR STARTER
MSC	MANUFACTURER SUPPLIED CABLE
OC	OPEN-CLOSE (D)
OCR	OPEN-CLOSE-REMOTE
OCA	OPEN-CLOSE-AUTO
OO	ON-OFF
OOA	ON-OFF-AUTO
OOR	ON-OFF-REMOTE
ORP	OXIDATION REDUCTION POTENTIAL
OSC	OPEN-STOP-CLOSE
pH	HYDROGEN ION CONCENTRATION
PLC	PROGRAMMABLE LOGIC CONTROLLER
REM	REMOTE
RIO	REMOTE I/O UNIT
RM-X	REMOTE MULTIPLEXING MODULE NO. X
RPM	REVOLUTIONS PER MINUTE
RTU-X	REMOTE TELEMETRY UNIT NO. X
SF	SLOWER-FASTER
SS	START-STOP
SSC	SUPERVISORY SET POINT CONTROL
TCL_2	TOTAL CHLORINE RESIDUAL
TURB	TURBIDITY
VIB	VIBRATION
Δ	DIFFERENCE
Σ	SUM
X	MULTIPLY
$\div$	DIVIDE
f(x)	CHARACTERIZED
$\sqrt{}$	SQUARE ROOT
AVG	AVERAGE
>	SELECT HIGHEST SIGNAL
<	SELECT LOWEST SIGNAL
}	BIAS

GENERAL NOTES

1. COMPONENTS AND PANELS SHOWN WITH A SINGLE DIAMOND (◆) ARE TO BE PROVIDED AS PART OF THE PROCESS INSTRUMENTATION AND CONTROL SYSTEM.
2. COMPONENTS AND PANELS SHOWN WITH A DOUBLE ASTERISK (**) ARE TO BE PROVIDED AS PART OF A PACKAGE SYSTEM.
3. THIS IS A STANDARD LEGEND. THEREFORE, NOT ALL OF THIS INFORMATION MAY BE USED ON THIS PROJECT.

PRELIMINARY NOT FOR CONSTRUCTION

NO	DATE	DESCRIPTION	APVR
NO.	DATE	REVISION	BY	APVD

DSGN W PEARSON | DR M DUNN | CHK CHECKED-BY | APVD APPROVED-BY

CH2MHILL

MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE PHASE 2

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

GENERAL

BAYOU LAFOURCHE PROCESS AND INSTRUMENTATION LEGEND

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING. 0 1"

DATE	SEPT 2005
PROJ	177889
DWG	G-11
SHEET	11

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VALVE SYMBOLS

- GATE
- KNIFE GATE
- BUTTERFLY
- GLOBE
- BALL
- VEE- BALL
- PLUG
- SEAT PORT ECCENTRIC PLUG
- DIAPHRAGM
- PINCH
- NEEDLE
- SWING CHECK
- BALL CHECK
- BACKFLOW PREVENTER
- ROTARY
- PRESSURE RELIEF
- AIR AND/OR VACUUM RELEASE
- REGULATED SIDE PRESSURE CONTROL
- MULTI-PORT VALVES (GATE VALVE SHOWN. FOR OTHER VALVE TYPES, APPROPRIATE VALVE SYMBOL SHOWN.) SEAT PORTS ARE IMPLIED BY INDICATED FLOW PATTERN.
- ANGLE GATE
- TELESCOPE
- SAMPLE
- MUD
- PRESSURE REGULATING (CLAY-TYPE)

GATE SYMBOLS

- SLUICE
- BUTTERFLY
- FABRICATED SLIDE
- FLAP
- STOP LOG

ACTUATOR SYMBOLS

- XX PNEUMATIC DIAPHRAM SPRING-OPPOSED, SINGLE OR DOUBLE ACTING
- XX PNEUMATIC CYLINDER SINGLE OR DOUBLE ACTING ACTUATED BY ONE INPUT
- XX ELECTRIC MOTOR
- XX SOLENOID
- XX HYDRAULIC
- VALVE POSITIONER
- MANUAL
- XX ELECTROHYDRAULIC
- DIAPHRAGM, DIFFERENTIAL PRESSURE

NOTE:
ON LOSS OF PRIMARY POWER (PNEUMATIC, ELECTRICAL OR HYDRAULIC)
XX: FO =FAIL OPEN
FC =FAIL CLOSED
FLP=FAIL TO LAST POSITION

PRIMARY ELEMENT SYMBOLS

- PARSHALL FLUME
- WEIR
- ORFICE PLATE
- FLOW TUBE
- PITOT-STATIC
- VORTEX METER
- ULTRASONIC FLOWMETER
- ELECTROMAGNETIC FLOWMETER
- PROPELLER OR TURBINE METER
- THERMAL FLOWMETER
- ROTAMETER
- DENSITY METER
- GENERIC
- LEVEL (ULTRASONIC)
- LEVEL (BUBBLER TUBE)
- LEVEL (FLOAT)

MISCELLANEOUS SYMBOLS

- DIAPHRAGM SEAL
- BLIND FLANGE
- AIR GAP
- VENT TO ATMOSPHERE
- AERATOR
- PLUG
- RECEPTACLE
- SELF CONTAINED AIR SUPPLY
- COMPOSITE SAMPLER (DIPPER TYPE)
- COMPOSITE SAMPLER (SUCTION TYPE)
- TV CAMERA
- INTERLOCK. SEE CONTROL DIAGRAMS
- PURGE SET X : W = WATER A = AIR SEE
- XX AIR SET XX= SUPPLY PRESSURE IN PSIG.
- FILTER/ REGULATOR/ GAUGE SET
- FLEXIBLE CONNECTOR
- PULSATION DAMPENER
- FILTER
- DRIP TRAP
- FLAME TRAP
- STRAINER
- HORN
- 120V 120 VOLT, 60 HZ POWER
- 480V 480 VOLT, 60 HZ POWER
- ANNULAR DIAPHRAGM SEAL
- RUPTURE DISK (PRESSURE)
- RUPTURE DISK (VACUUM)
- PIG INSERT POINT
- OR PIG CATCH POINT
- MIXER
- ELECTRIC MOTOR
- TV MONITOR
- LOGIC ELEMENT: IF A AND NOT B THEN C
- LOGIC ELEMENT: IF A OR B THEN C
- FLUSHING CONNECTION
- HOSE ADAPTOR
- SEAL WATER SET
- SIGHT GLASS
- FFLCPLLLX PANEL CONTINUED ON SAME OR OTHER DRAWING
- PANEL OUTLINE
- PANEL NAME
- SKIMMING MECHANISM
- SCREW
- SCREW CONVEYOR
- INLINE SILENCER
- PIPE CAP
- CALIBRATION COLUMN

PUMP AND COMPRESSOR SYMBOLS

NOTE: XX: AS ADJUSTABLE SPEED
CS-1 CONSTANT SPEED (SINGLE SPEED)
CS-2 CONSTANT SPEED (TWO SPEED)

- CENTRIFUGAL PUMP (DRY PIT)
- CENTRIFUGAL WET PIT PUMP OR TURBINE PUMP
- RECIPROCATING OR METERING PUMP (POSITIVE DISPLACEMENT)
- DIAPHRAGM PUMP
- GEAR PUMP OR BLOWER (POSITIVE DISPLACEMENT)
- PISTON PUMP
- SUBMERSIBLE SUMP PUMP
- VACUUM PUMP
- ROTARY PUMP
- SCREW PUMP
- PROGRESSIVE CAVITY PUMP
- COMPRESSOR (CENTRIFUGAL)
- COMPRESSOR (PISTON)
- BLOWER OR FAN (CENTRIFUGAL)
- EJECTOR

FLOW STREAM IDENTIFICATION

Code	Description
ADE	AUTOMATIC DECANT
AHP	AIR,HIGH PRESSURE
AS	AIR SCRUB
BYP	BYPASS
CB	CORE BLOW
CDG	CARBON DIOXIDE GAS
CDL	CARBON DIOXIDE LIQUID
CDS	CARBON DIOXIDE SOLUTION
CIP	CLEAN-IN-PLACE
CIPR	CLEAN-IN-PLACE RECIRCULATION
CS	CHLORINE SOLUTION
CW	CARRIER WATER
CWS	COLD WATER SUPPLY
D	SANITARY DRAIN
DC	CHEMICAL DRAIN
DE	DECANT
DR	DRAIN
EFM	ENHANCED FLUX MAINTENANCE
EQR	EQUALIZATION RECYCLE
ER	EXCESS RECIRCULATION
FC	FERRIC CHLORIDE
FPF	FILTER PRESS FILTRATE
FW	FINISHED WATER
HWS	HOT WATER SUPPLY
MDE	MANUAL DECANT
OF	OVERFLOW
RD	ROOF DRAIN
REC	RECYCLE
RF	REVERSE FILTRATE
RHW	RECIRCULATING HOT WATER
RW	RAW WATER
RWP	RAW WATER PRETREATED
RWL	RAW WATER LEADER
SA	SAMPLE
SB	SODIUM BISULFITE
SD	STORM DRAIN
SFM	SEWER FORCE MAIN
SH	SODIUM HYDROXIDE
SHC	SODIUM HYPOCHLORITE
SPD	SUMP PUMP DISCHARGE
SR	SOLIDS RECIRCULATION
TS	THICKENED SLUDGE
TW	TREATED WATER
V	VENT
VAC	VACUUM
W1	POTABLE UTILITY WATER
W2	UTILITY WATER

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MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE PHASE 2
LOUISIANA DEPARTMENT OF NATURAL RESOURCES

CH2MHILL

GENERAL
BAYOU LAFOURCHE
PROCESS AND INSTRUMENTATION LEGEND

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2005
PROJ	177889
DWG	G-12
SHEET	12

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NOTE:

1. SEE PHASE 2 DESIGN REPORT FOR FURTHER DESCRIPTION OF DREDGING REACHES.

0 6000 12000 18000
Scale In Feet

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NO.	DATE	REVISION	BY	APVD

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MISSISSIPPI RIVER WATER REINTRODUCTION INTO BAYOU LAFOURCHE PHASE 2

LOUISIANA DEPARTMENT OF NATURAL RESOURCES

CH2MHILL

CIVIL

BAYOU LAFOURCHE KEY PLAN 1

VERIFY SCALE

BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2005
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DWG	10-C-1
SHEET	13

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CIVIL

BAYOU LAFOURCHE KEY PLAN 2

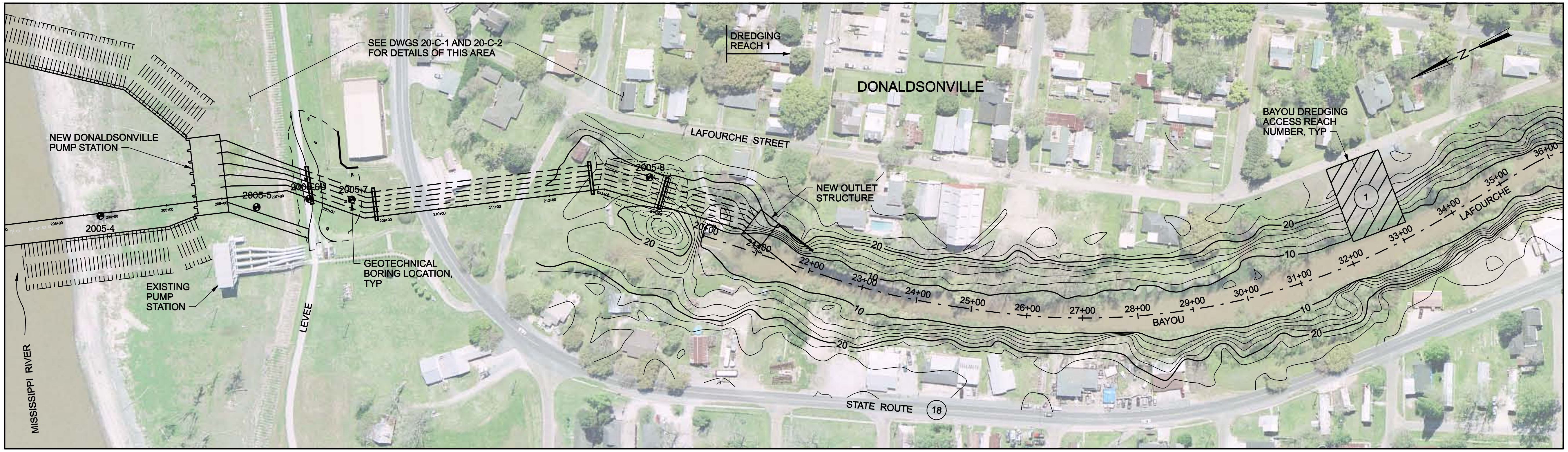
VERIFY SCALE

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0 1"

DATE	SEPT 2005
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DWG	10-C-2
SHEET	14

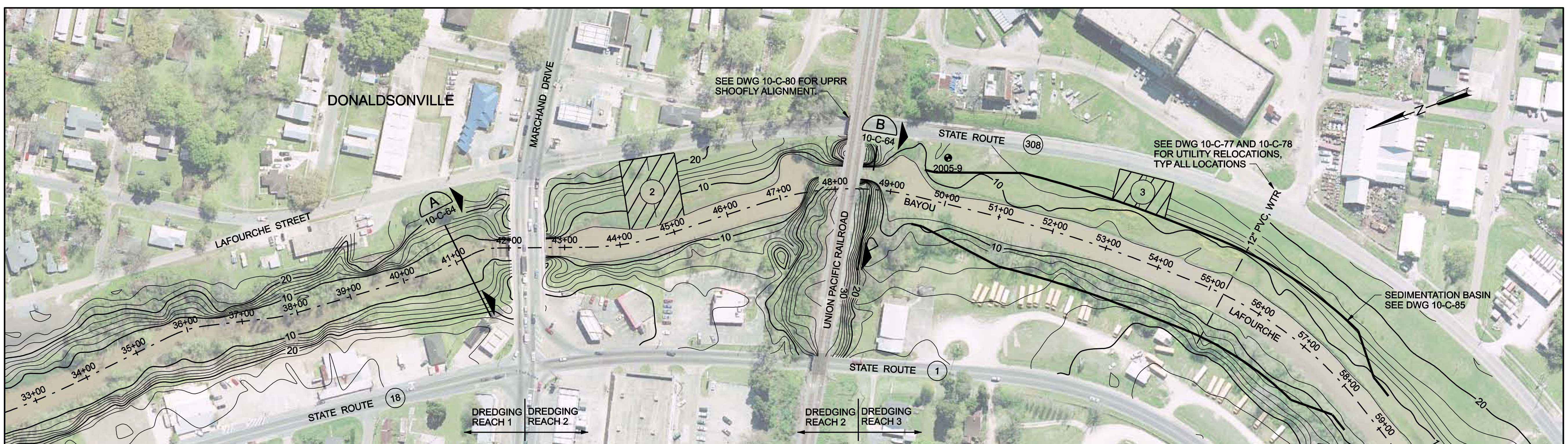
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NOTES:

1. CONTOUR LINES ARE ONLY SHOWN BETWEEN THE ADJACENT ROADS TO THE MAIN CHANNEL.
2. CONTOURS WERE DEVELOPED FROM LIDAR DATA WHICH IS CONCIDERED ACCURATE TO ± 1-2 FT.

0 100 200 300
Scale In Feet



FOR CONTINUATION SEE DWG 10-C-4

0 100 200 300
Scale In Feet

PRELIMINARY
NOT FOR
CONSTRUCTION

NO	DATE	DESCRIPTION	APVR	BY	APVD
NO.	DATE	REVISION	BY	CHK	APVD

DSGN	DR	CHK	APVD
K ICEMAN	M DUNN	CHECKED-BY	APPROVED-BY

MISSISSIPPI RIVER
WATER REINTRODUCTION
INTO BAYOU LAFOURCHE PHASE 2
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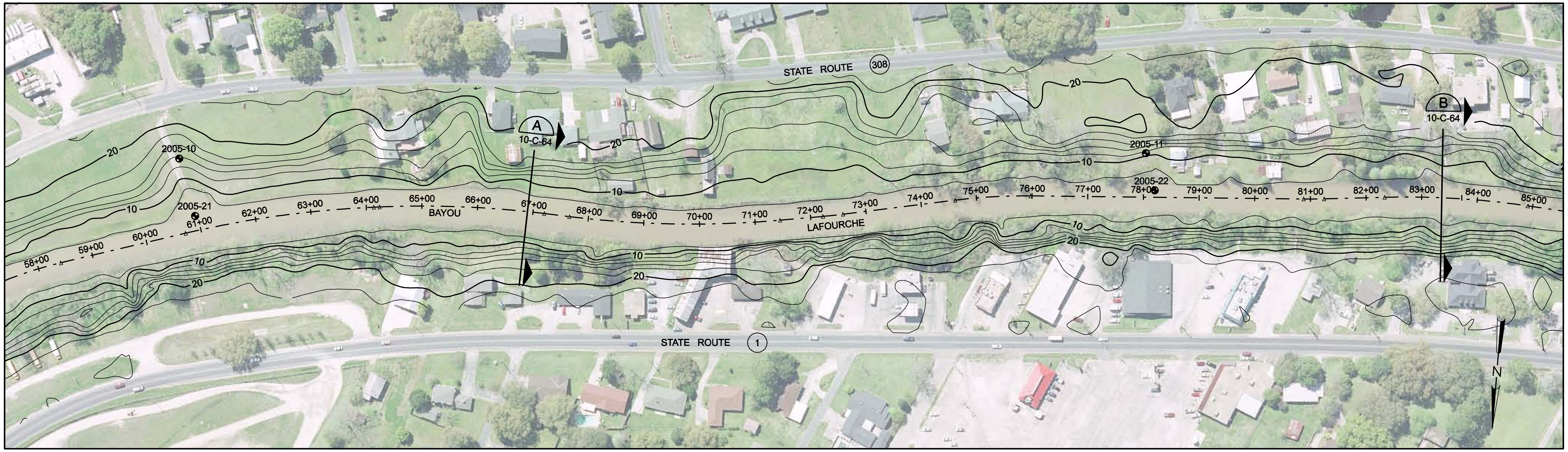
CH2MHILL

CIVIL
BAYOU LAFOURCHE
PLAN
STA 20+00 TO STA 59+00

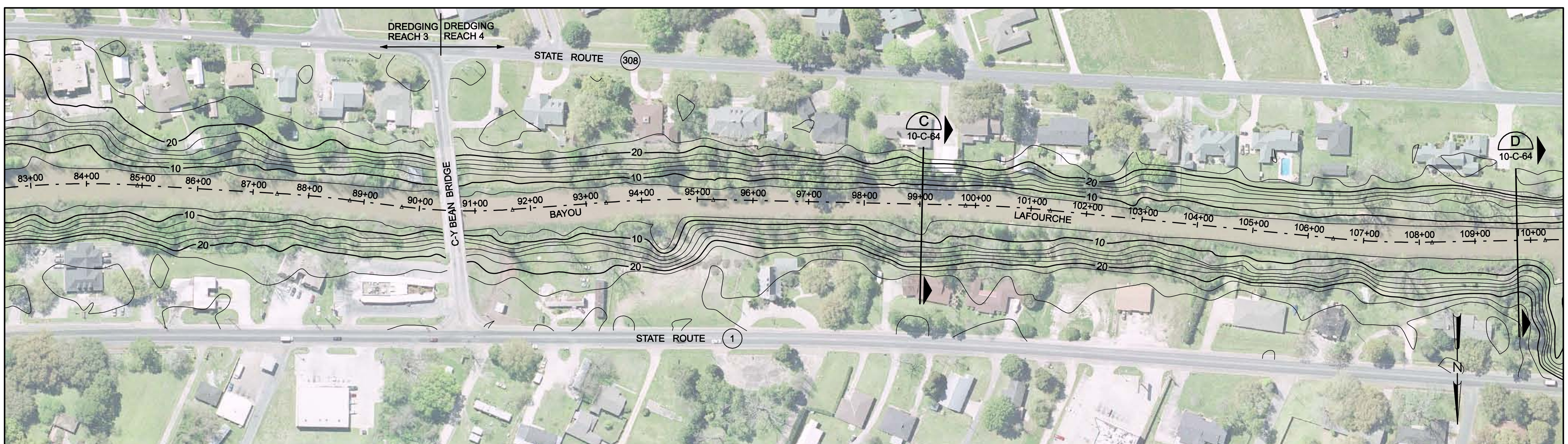
VERIFY SCALE
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0 1"

DATE	SEPT 2005
PROJ	177889
DWG	10-C-3
SHEET	15

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0 100 200 300
Scale In Feet



0 100 200 300
Scale In Feet

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WATER REINTRODUCTION
INTO BAYOU LAFOURCHE PHASE 2
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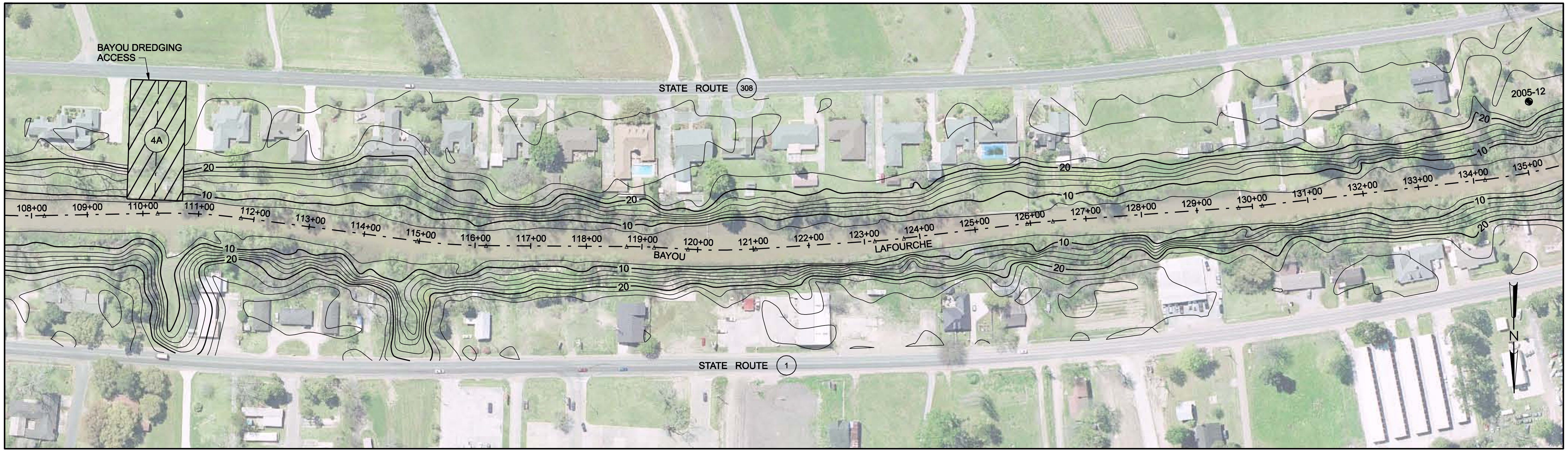
CH2MHILL

CIVIL
BAYOU LAFOURCHE
PLAN
STA 59+00 TO STA 109+00

VERIFY SCALE
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0 1"

DATE	SEPT 2005
PROJ	177889
DWG	10-C-4
SHEET	16

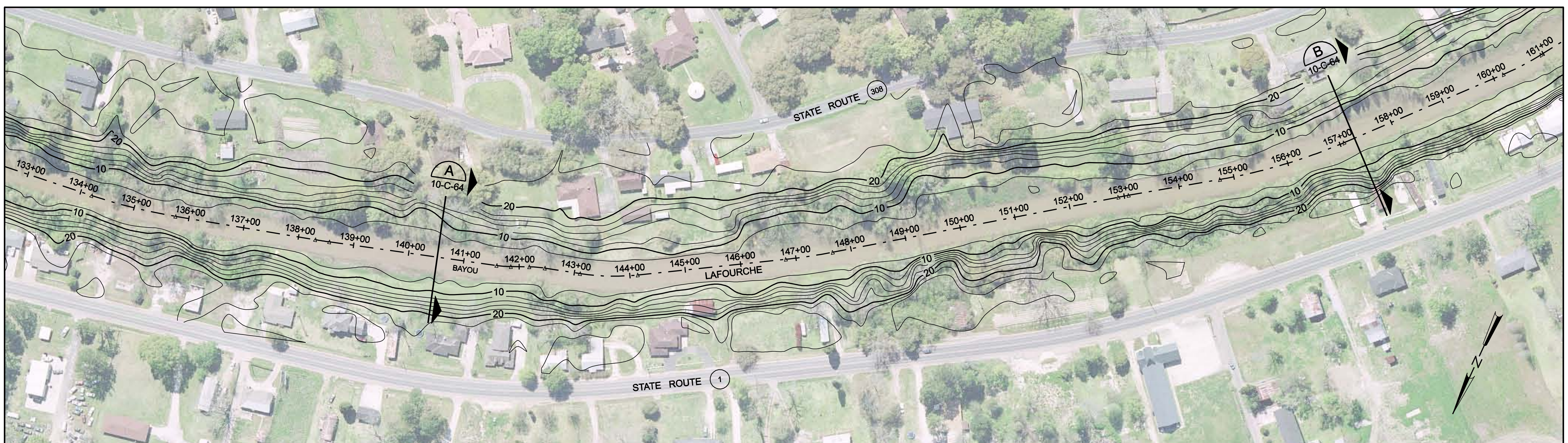
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FOR CONTINUATION SEE DWG 10-C-4

FOR CONTINUATION SEE BELOW

0 100 200 300
Scale In Feet



FOR CONTINUATION SEE ABOVE

FOR CONTINUATION SEE DWG 10-C-6

0 100 200 300
Scale In Feet

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WATER REINTRODUCTION
INTO BAYOU LAFOURCHE PHASE 2
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NATURAL RESOURCES

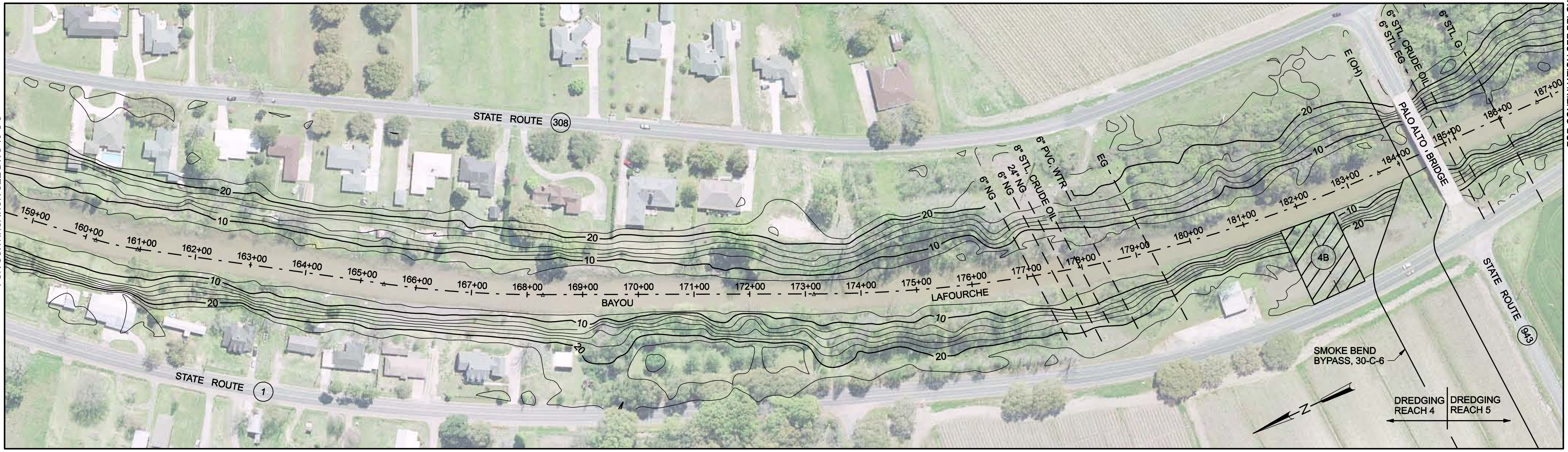
CH2MHILL

CIVIL
BAYOU LAFOURCHE
PLAN
STA 109+00 TO STA 159+00

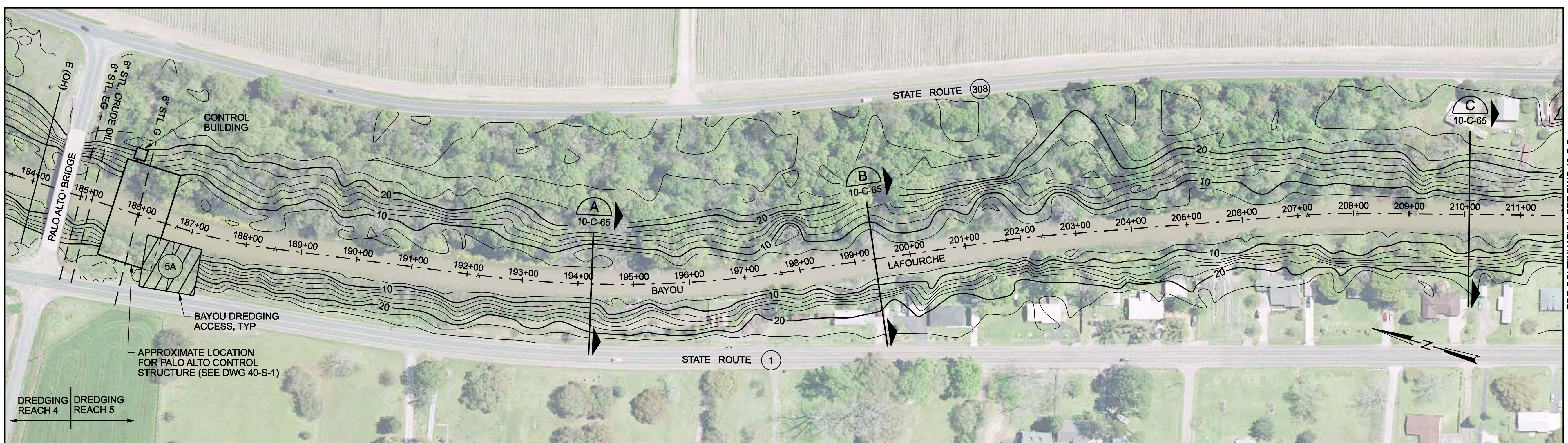
VERIFY SCALE
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0 1"

DATE	SEPT 2005
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DWG	10-C-5
SHEET	17

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0 100 200 300
Scale In Feet



0 100 200 300
Scale In Feet

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LOUISIANA DEPARTMENT OF NATURAL RESOURCES

CH2MHILL

CIVIL

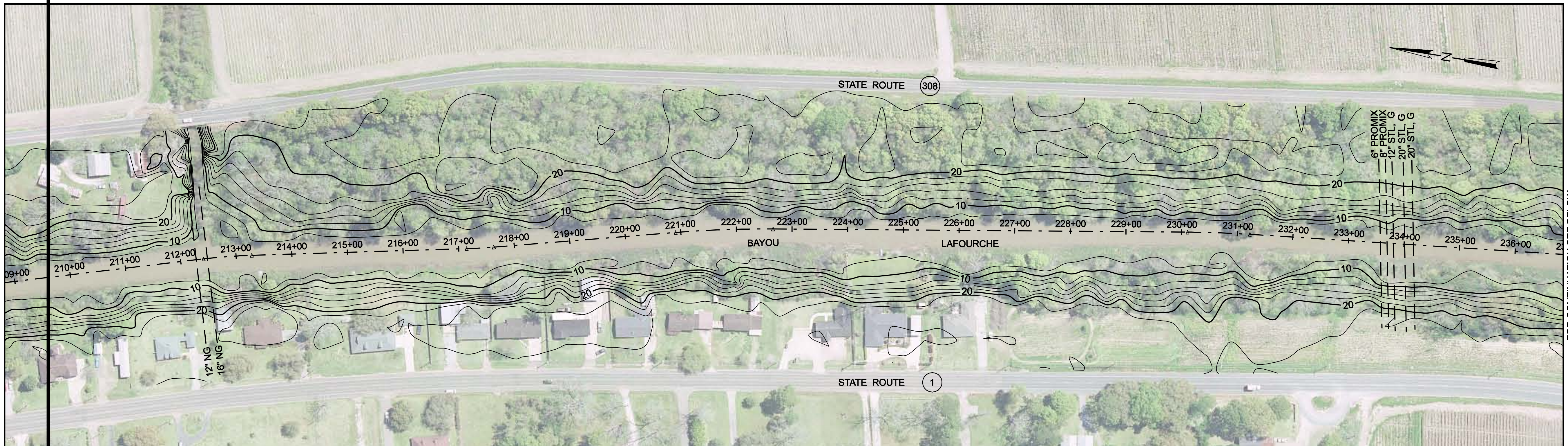
BAYOU LAFOURCHE PLAN STA 159+00 TO STA 210+00

VERIFY SCALE

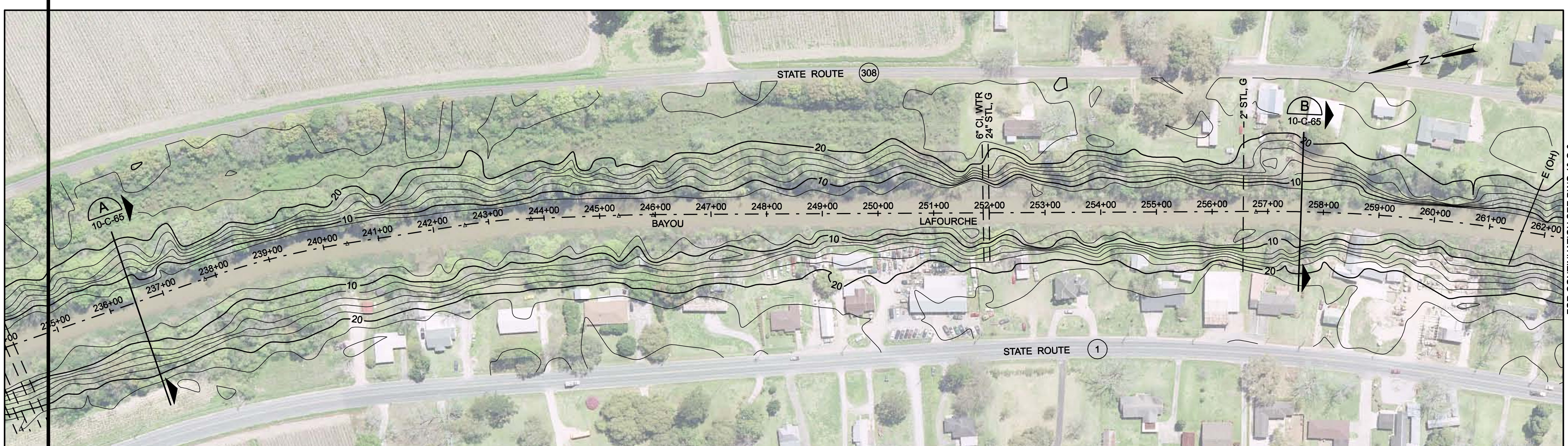
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0 1"

DATE	SEPT 2005
PROJ	177889
DWG	10-C-6
SHEET	18

ISSUED FOR 30% REVIEW



0 100 200 300
Scale In Feet



0 100 200 300
Scale In Feet

PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	DATE	REVISION	BY	APVR
NO	DATE	DESCRIPTION	N	APVD

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MISSISSIPPI RIVER
WATER REINTRODUCTION
INTO BAYOU LAFOURCHE PHASE 2
LOUISIANA DEPARTMENT OF
NATURAL RESOURCES

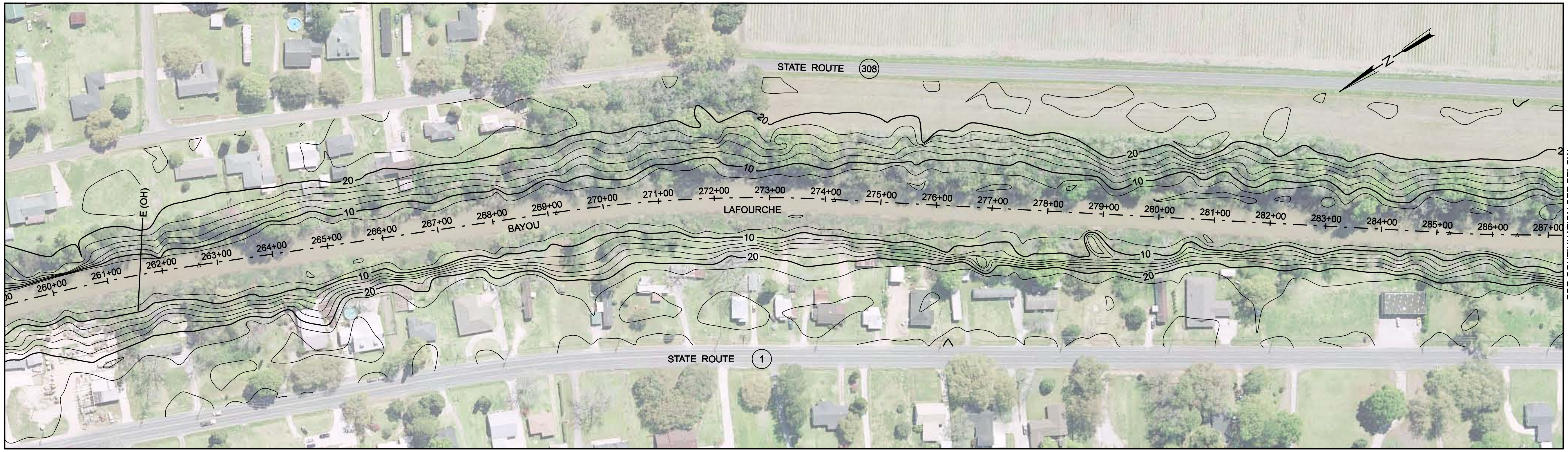
CH2MHILL

CIVIL
BAYOU LAFOURCHE
PLAN
STA 210+00 TO STA 260+00

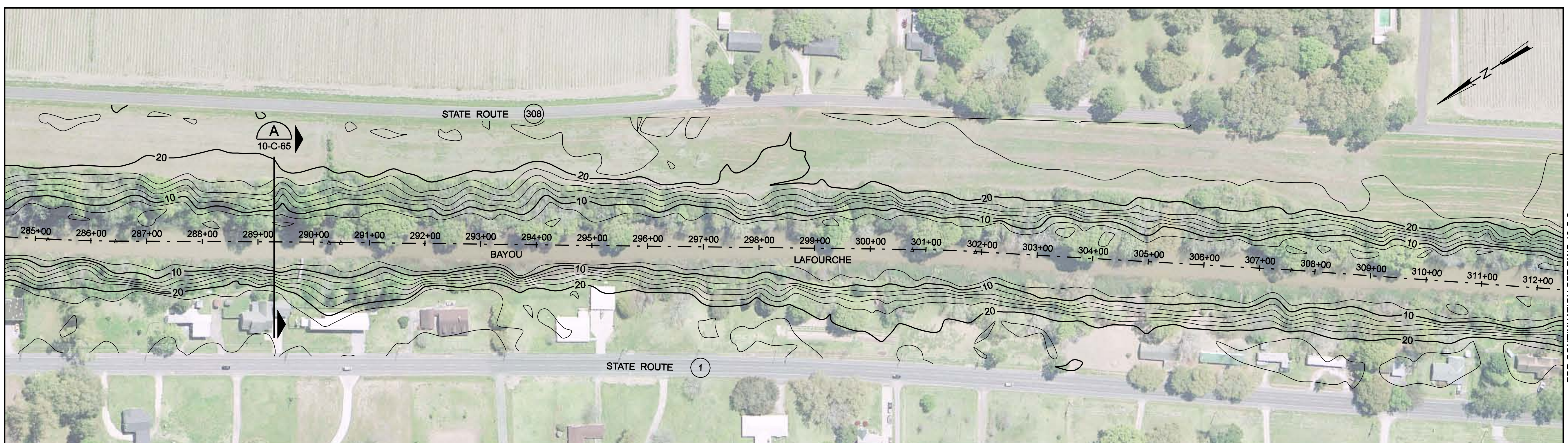
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2005
PROJ	177889
DWG	10-C-7
SHEET	19

ISSUED FOR 30% REVIEW



0 100 200 300
Scale In Feet



0 100 200 300
Scale In Feet

PRELIMINARY
NOT FOR
CONSTRUCTION

NO	DATE	DESCRIPTION	APVR	N
NO.	DATE	REVISION	BY	APVD
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MISSISSIPPI RIVER
WATER REINTRODUCTION
INTO BAYOU LAFOURCHE PHASE 2
LOUISIANA DEPARTMENT OF
NATURAL RESOURCES

CH2MHILL

CIVIL
BAYOU LAFOURCHE
PLAN
STA 260+00 TO STA 310+00

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"

DATE	SEPT 2005
PROJ	177889
DWG	10-C-8
SHEET	20

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